Chapter Four
Mortality

Introduction

Diabetes is listed as the sixth leading cause of death in South Carolina. In addition to death from acute complications, diabetes increases the risk of death from cardiovascular disease and end-state renal disease. Although increased death rates are seen for all ages and races, minority populations and older populations experience the highest rates. The mortality data in this chapter are based on information listed on death certificates, and may underestimate the burden of diabetes because diabetes is likely to be under-reported on death certificates, according to previous studies.

Mortality Rates

Mortality

A total of 1,089 South Carolinians died from diabetes in 2001. Figure 66 shows that the age-adjusted mortality for which diabetes was the underlying cause of death increased between 1990 and 1995, and has remained around the rate of 30/100,000 since 1996. Blacks had a mortality rate of 54/100,000 in 2001, more than 2.5 times the rate of 21/100,000 for whites. Men had a mortality rate 22% higher than that among women. During 1990 to 2001, the mortality of diabetes increased by 15% for both whites and blacks. However, men experienced greater increase in mortality (28%) than women (4%) during 1990 to 2001 (Figure 67).

Figure 66. Age-Adjusted Mortality Rate for Diabetes as the Underlying Cause of Death, SC, 1990-2001

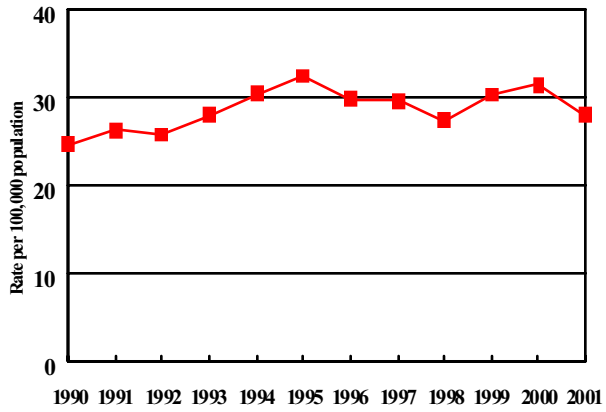
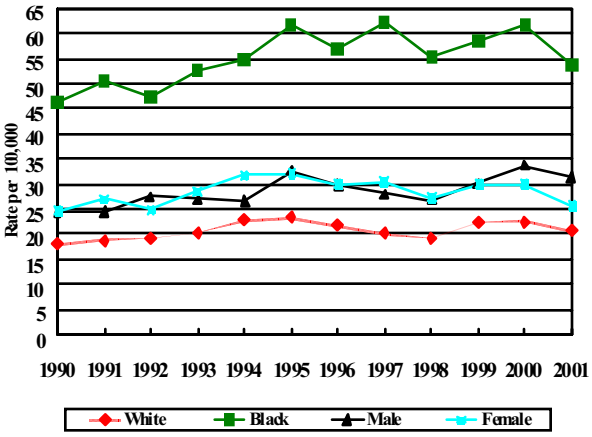
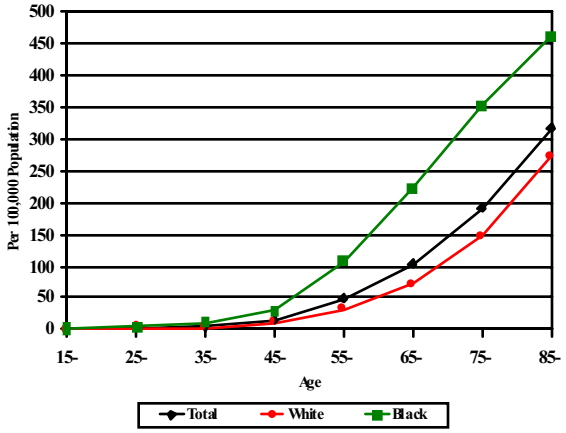


Figure 67. Standardized Mortality Rates for Diabetes as the Underlying Causes of Death by Race, Sex, SC, 1990-2001



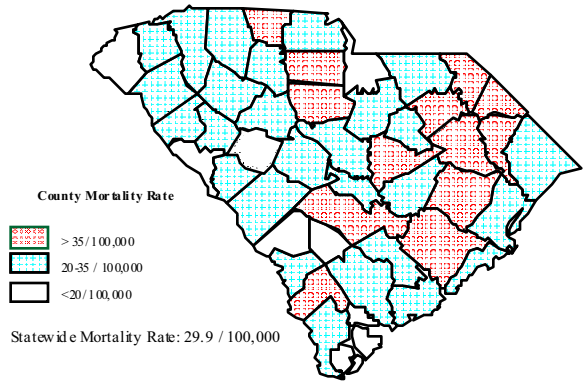
The age-specific mortality increases with age (Figure 68). Mortality rate almost doubled for every age group.

Figure 68. Age-Specific Mortality Rate of Diabetes as the Underlying Cause of Death, SC, 2001



The state average mortality rate was 29.9/100,000 in 2001. Thirteen counties had an age-adjusted mortality higher than the state average and seven counties had a mortality rate lower than the state average. Most of the counties with high mortality are located a cluster of counties in the Pee Dee area (Figure 69). This is a pattern consistent with that for risk factors, prevalence of diabetes and hospitalizations for diabetes.

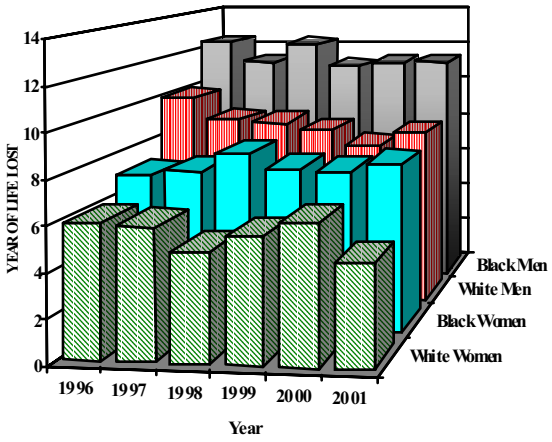
Figure 69. Age-Adjusted Mortality of Diabetes (Underlying Cause of Death), SC, 1999-2001



Years of Potential Life Lost

Average life expectancy for people with diabetes is five to 10 years less than for people without diabetes. Years of potential life loss (YPLL) is calculated by adding all the years of life for people with diabetes who died before normal life expectancy (70 years for men and 76 years for women). Figure 70 illustrates the YPLL due to diabetes from 1996 to 2001. In 1996-2001, 6,368 South Carolinians died from diabetes, which was listed as the underlying cause of death, with a total of 50,300 potential years of life loss. In average, life expectancy for people with diabetes in South Carolina was 7.9 years less than the "normal" life expectancy. Among people with diabetes, men might have lost more years of potential life than did women, and blacks potentially lost more years than did whites.

Figure 70. Average Number of Years of Potential Life Lost for Diabetes as Underlying Cause of Death by Race-Sex, SC, 1996-2001



Summary

Approximately three thousand South Carolinians die from diabetes every year. Diabetes-related mortality appeared to decline in 1995-1997 after a decade long increase in South Carolina. Data in South Carolina indicated that mortality of diabetes increased exponentially with age. The majority (82%) of deaths from diabetes occurred among people aged 60 and older.

Race-sex specific mortality tracked closely with the patterns of diabetes-related risk factors and morbidity. Minorities, predominantly Blacks, experienced a substantially higher death rate and greater years of potential life lost than whites. Appropriate, innovative communication and education programs are needed to reduce the tremendous burden in this population. Meanwhile, increasing awareness, access to care, and diabetes management are critical for people with diabetes. Increasing resources of diabetes control in South Carolina, particularly rural health settings, targeting high-risk populations are objectives of DSC and SCDPCP.